Case Report
JCAM

A rare cause in the differential diagnosis of abdominal pain: stercoral colitis

Cihan Bedel[1], Ural Koç[2]
[1]Emergency Medicine Department, Antalya Training And Research Hospital, Antalya,
[2]Radiology Department, Erzincan Mengücek Gazi Training and Research Hospital, Erzincan, Turkey

Abstract

AbstractStercoral colitis is a rare and often fatal complication of constipation. Diagnosis of stercoral colitis is made in only 10% of patients before surgery. A 45-year-old female presented to the emergency department with abdominal pain and constipation. Computerized abdominal tomography was suitable with the diagnosis of stercoral colitis. Stercoral colitis complications are related to high mortality and morbidity. Early diagnosis and treatment should be started. We have presented a rare case of "stercoral colitis" and have observed the diagnosis and treatment methods in the light of literature information.

Keywords

Stercoral Colitis; Constipation; Abdominal Pain

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Corresponding Author: Cihan Bedel, Antalya Training and Research Hospital, 07100, Muratpaşa, Antalya,Turkey.
GSM: +905075641254 E-Mail: cihanbedel@hotmail.com

Introduction

Constipation is common in psychiatric patients and can be due to a sedentary lifestyle, low-fiber diet, inadequate fluid intake, or anxiety around using the bathroom [1]. Up to 20% of patients who take antipsychotics develop constipation, and the anticholinergic effects of antipsychotics and antidepressants have been associated with fecal impaction, paralytic ileus, and bowel obstruction [2]. Diagnosis of constipation and its complications is often difficult in psychiatric patients. We present a case of a female patient with psychiatric illness who presented with constipation and abdominal pain and were found to have stercoral colitis. Stercoral colitis results from fecal impaction with secondary bowel ischemia. It is a rare occurrence overall, especially in young patients, and it is often misdiagnosed. In cases of stercoral colitis with perforation, mortality is as high as 60% [2]. We aimed to create awareness for stercoral colitis in patients with constipation and abdominal pain.

Case Report

A 45-year-old female with bipolar disorder presented to the emergency department with lower quadrant abdominal pain, nausea, and anorexia lasting for 2 days. She denied chronic constipation and had last bowel movement 5 days earlier. Physical examination revealed a moderately distended abdomen with tenderness in the lower quadrant and suprapubic region, with normal bowel sounds and no guarding or rebound tenderness. A hard stool was palpated in the rectal vault. Vital signs were normal, and laboratory studies were unremarkable. Past medications included olanzapine and lithium. A plain x-ray study of the abdomen revealed air-fluid level and fecal impaction (figure 1).

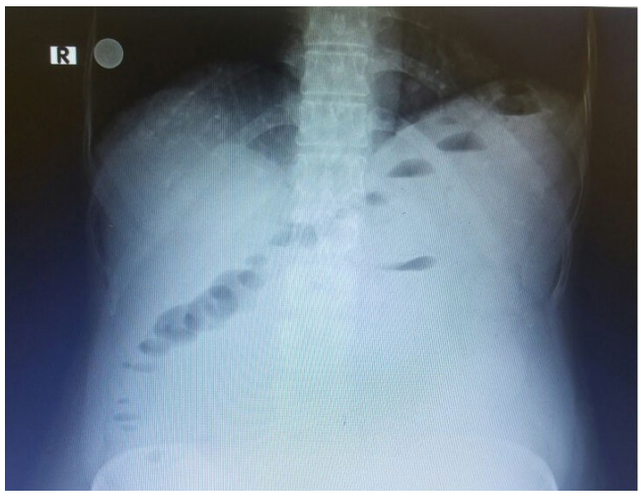

Figure 1. Plain abdominal X-ray: multiple air fluid level and fecal impaction air fluid level

Contrast-enhanced computed tomography (CT) of the abdomen and pelvis was performed to rule out an obstruction (figure 2-3). CT scan demonstrated thickening of the colonic wall with a large volume of feces but no free air or mechanical obstruction or volvulus were identified. Wall thickness was over 3 mm in the rectosigmoid region. The colonic segment had increased cross-sectional diameter over 6 cm due to stool impaction. She was diagnosed with stercoral colitis without perforation. The patient was hospitalized in the general surgery clinic. She received i.v. fluids, oral laxatives, and water enemas. After numerous bowel movements, the patient's pain and distention resolved. The patient was discharged on the 8th day of hospitalization with oral laxatives, enemas, and quetiapine.

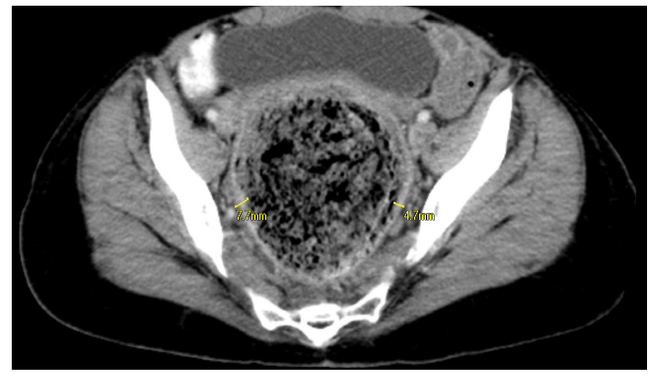

Figure 2. CT scan demonstrated thickening of colonic wall with large volume of faeces

Figure 3. CT scan demonstrated large volume of faeces

Discussion

In the literature, more than 150 cases of stercoral colitis, with or without perforation, have been reported [3-4]. Stercoral colitis is an inflammatory colitis that is caused by increased intraluminal pressure from impacted fecal material in the colon [2]. It was the cause of 3.2% of colonic perforations in one series [5] and present in 0.04%-2.3% of randomly selected autopsy examinations [6]. Constipation is the most common risk factor, present in 81% of patients [5]. Medications including narcotics, non-steroidal anti-inflammatory agents, codeine tricyclic anti-depressants and tranquilizers, increase the risk of stercoral ulcer, most probably secondary to their tendency to cause constipation [2,7]. In our case constipation developed due to the anticholinergic effect of antipsychotic drugs.

Stercoral colitis with or without perforation takes place most commonly in the sigmoid colon because it is the narrowest portion of the colon, has the lowest blood supply, and is the area of maximal dehydration of feces [5]._The clinical presenta-

tion of stercoral colitis without perforation is changeable. Pain may be diffuse or localized, and patients may be misdiagnosed with diverticulitis or appendicitis [8]. On physical examination, most patients have peritonitis, but rarely a palpable abdominal mass or fecaloma in the rectum [5,9]. In our patient, there was abdominal distention, tenderness on palpation in the lower quadrant and suprapubic region. Plain x-ray study of the abdomen may demonstrate fecal loading, calcified fecaloma, or pneumo-mediastinum [5]. Free air on plain x-ray study is seen in only 70% of patients with perforated stercoral colitis [4-5,9]. Diagnosis of stercoral colitis is made in only 10% of patients before surgery, and many patients develop colonic perforation, peritonitis, septic shock, and death [10-12]. CT of the abdomen expedites diagnosis and treatment of stercoral colitis. CT findings of stercoral colitis include fecal impaction, pericolonic fat stranding, colon wall thickening > 3 mm, and proximal colonic dilatation [4,13]. In our patient's tomography, wall thickness was over 3 mm in the rectosigmoid region. The colonic segment had increased cross-sectional diameter over 6 cm due to stool impaction. CT not only aids the diagnosis of stercoral colitis but also helps to guide treatment in patients with or without perforation. In stercoral colitis without perforation, 52% of patients can be treated non-operatively with a bowel regimen. The remainder deteriorates clinically and ultimately require surgery [13]. Methods to extract feces from the rectum, including digital disimpaction and enemas, do not improve abdominal discomfort [4]. In stercoral colitis with perforation, mortality is nearly 100% in patients treated nonoperatively, compared to 35-40% in patients treated operatively [9,11]. Stercoral colitis should be managed timely and adequately to avoid potentially life-threatening complications.

Conclusion

As a conclusion, emergency physicians should consider stercoral colitis in patients with constipation and abdominal pain. A high level of suspicion and early imaging are crucial to determine and cure this rare but potentially catastrophic disease.

Scientific Responsibility Statement

The authors declare that they are responsible for the article's scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.

Animal and human rights statement

All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. No animal or human studies were carried out by the authors for this article.

Conflict of interest

None of the authors received any type of financial support that could be considered potential conflict of interest regarding the manuscript or its submission.

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